AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.   (Currently Amended) A method of operation within a data processing system, the method comprising:

before receiving a request to execute a first function, registering an association between the first function and a second function that returns data type information for the first function;

receiving a request to execute [[a]] the first function to return data from a source, wherein the first function is able to return data with different organization and data types from more than one source;

in response to receiving the said first request to execute the first function, performing the steps of:

executing [[a]] the second function to obtain the data type information that specifies one or more data types of result data that should be retuned for the first function;, from said source organization and data type information describing data to be returned from said source by the first function,

registering the organization and data type information; describing the data to be returned from said source,

executing said the first function against said source to obtain the result data[[,]];

storing the result data obtained from the source in a format that reflects the said organization and data type information from the second function;[[,]] and

returning the result data as data having the one or more data types.

2-3.   (Canceled)

4.   (Currently Amended) The method of claim 1 wherein further comprising determining that said the source is associated with said the request comprises by determining whether a certain keyword is specified as a data return type for the first function.

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5. (Currently Amended) The method of claim 1 ~~wherein~~ further comprising determining that ~~said~~ the source is associated with ~~said~~ the request ~~comprises~~ by determining whether the first function returns data in an array of data elements.

6-8. (Canceled)

9. (Currently Amended) The method of claim 1 wherein the ~~organization and~~ data type information indicates an arrangement of rows and columns of a database table and wherein storing the result data obtained from the source in a format that reflects the data type information ~~organizing the result data according to the organization and data type information~~ comprises tabulating the result data according to the arrangement of rows and columns.

10-15. (Canceled)

16. (Currently Amended) A system comprising:

a processing entity; and

a memory coupled to the processing entity and having program code stored therein which, when executed by the processing entity, causes the processing entity to:

before receiving a request to execute a first function, register an association between the first function and a second function that returns data type information for the first function;

receive a request to execute [[a]] the first function included in the program code to return data from a source~~, wherein the first function is able to return data with different organization and data types from more than one source~~;

in response to receiving the ~~said first~~ request to execute the first function, performing the steps of:

executing[[e]] [[a]] the second function to obtain data type information that specifies one or more data types of result data that should be retuned for the first function;~~, from said source, organization and data type~~

~~information describing data to be returned from said source by the first~~

~~function,~~

registering the ~~organization and~~ data type information: ~~describing the data to be~~

~~returned from said source,~~

executing ~~said~~ the first function ~~against said source~~ to the obtain result data,

storing the result data obtained from the source in a format that reflects ~~said~~

~~organization and~~ the data type information from the second function; and

returning the result data as data having the one or more data types.

17-21.   (Canceled)

22.   (Currently Amended) A computer-readable medium carrying one or more sequences of

instructions which, when executed by one or more processors, causes the one or more

processors to:

before receiving a request to execute a first function, register an association between the

first function and a second function that returns data type information for the first

function;

receive a request to execute [[a]] the first function to return data from a source~~, wherein~~

~~the first function is able to return data with different organization and data types~~

~~from more than one source~~;

in response to receiving the ~~said first~~ request to execute the first function, performing the

steps of:

executing[[e]] [[a]] the second function to obtain data type information that

specifies one or more data types of result data that should be retuned for

the first function;~~, from said source, organization and data type~~

~~information describing data to be returned from said source by the first~~

~~function,~~

registering the ~~organization and~~ data type information: ~~describing the data to be~~

~~returned from said source,~~

executing ~~said~~ the first function ~~against said source~~ to obtain the result data,

storing the result data obtained from the source in a format that reflects ~~said~~

~~organization and~~ the data type information from the second function; and

returning the result data as data having the one or more data types.

23-24. (Canceled)

25.   (Currently Amended) The method of claim 1 wherein the registered ~~organization and~~ data

type information is used to type-check the first function.

26.   (Currently Amended) The computer readable medium of claim 22 ~~wherein~~ further

comprising determining that ~~said~~ the source is associated with ~~said~~ the request ~~comprises~~

by determining whether a certain keyword is specified as a data return type for the first

function.

27.   (Currently Amended) The computer readable medium of claim 22 ~~wherein~~ further

comprising determining that ~~said~~ the source is associated with ~~said~~ the request ~~comprises~~

by determining whether the first function returns data in an array of data elements.

28.   (Currently Amended) The computer readable medium of claim 22 wherein the

~~organization and~~ data type information indicates an arrangement of rows and columns of

a database table and wherein storing the result data obtained from the source in a format

that reflects the data type information ~~organizing the result data according to the~~

~~organization and data type information~~ comprises tabulating the result data according to

the arrangement of rows and columns.

29.   (Canceled)

30.   (Currently Amended) The computer readable medium of claim 22 wherein the registered

~~organization and~~ data type information is used to type-check the first function.

31-34. (Canceled)